



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q90407

Masahiro HAGIWARA, et al.

Appln. No.: 10/550,259

Group Art Unit: 1731

Confirmation No.: 1176

Examiner: unknown

Filed: September 21, 2005

For: **TIN-DOPED INDIUM OXIDE FINE PARTICLE DISPERSION, METHOD FOR  
MANUFACTURING THE SAME, INTERLAYER FILM FOR LAMINATED GLASS  
WITH HEAT RAY BLOCKING PROPERTIES FORMED BY USING SAID  
DISPERSION, AND LAMINATED GLASS THEREWITH**

**REQUEST FOR CORRECTED OFFICIAL FILING RECEIPT**

**ATTN:** Office of Initial Patent Examination  
Filing Receipt Correction

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

We enclose a copy of the Official Filing Receipt for the above-identified application and request the following corrections:

**Assignment for Published Patent Application**

MITSUBISHI MATERIALS CORPORATION

JEMCO INC.

SEKISUI CHEMICAL CO., LTD.

**Foreign Applications**

JAPAN 2003-[424446] 12/24/2003 JAPAN 2003-427446 12/24/2003

**Title**

[Tin-doped indium oxide microparticle dispersion, process for producing the same, interlayer for laminated glass having heat-ray blocking property produced with the dispersion and laminated glass] **TIN-DOPED INDIUM OXIDE FINE PARTICLE DISPERSION, METHOD FOR MANUFACTURING THE SAME, INTERLAYER FILM FOR LAMINATED GLASS WITH HEAT RAY BLOCKING PROPERTIES**

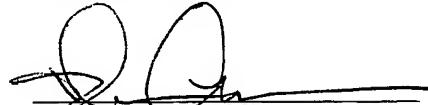
REQUEST FOR CORRECTED OFFICIAL FILING RECEIPT  
Page 2

Q90407

FORMED BY USING SAID DISPERSION, AND LAMINATED GLASS  
THEREWITH

Verification for the requested corrections is indicated on the Assignment and Declaration filed September 21, 2005.

Respectfully submitted,

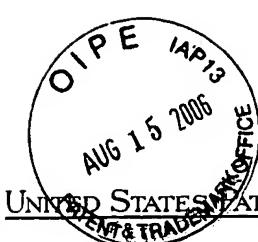


Richard C. Turner  
Registration No. 29,710

SUGHRUE MION, PLLC  
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WASHINGTON OFFICE  
23373  
CUSTOMER NUMBER

Date: August 15, 2006



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY.DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/550,259	09/21/2005	1731	1200	Q90407		26	1

## CONFIRMATION NO. 1176

23373  
 SUGHRUE MION, PLLC  
 2100 PENNSYLVANIA AVENUE, N.W.  
 SUITE 800  
 WASHINGTON, DC 20037

## FILING RECEIPT



\*OC000000019473314\*

Date Mailed: 07/10/2006

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please mail to the Commissioner for Patents P.O. Box 1450 Alexandria Va 22313-1450. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

## Applicant(s)

Masahiro Hagiwara, Kurihara-shi, JAPAN; ✓  
 Takeshi Nakagawa, Kashima-gun, JAPAN; ✓  
 Juichi Fukatani, Ritto-shi, JAPAN; ✓  
 Tadahiko Yoshioka, Kawasaki-shi, JAPAN; ✓  
 Bungo Hatta, Koka-shi, JAPAN; ✓

*Assignment for Published Patent Application*  
**MITSUBISHI MATERIALS CORPORATION; JEMCO Inc.; SEKISUI CHEMICAL CO., LTD.**  
 Power of Attorney: The patent practitioners associated with Customer Number 23373.

## Domestic Priority data as claimed by applicant

This application is a 371 of PCT/JP04/08576 06/11/2004 ✓

## Foreign Applications

JAPAN 2003-424446 12/24/2003 427446

Projected Publication Date: 10/12/2006

Non-Publication Request: No

Early Publication Request: No

## Title

Tin-doped indium oxide microparticle dispersion, process for producing the same, interlayer for

Tin-doped indium oxide fine particle dispersion, method for manufacturing the same, interlayer film for laminated glass with heat ray blocking properties formed by using said dispersion, and laminated

1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

glass therewith

laminated glass having heat-ray blocking property produced with the dispersion and laminated glass

**Preliminary Class**

065

**PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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**LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR

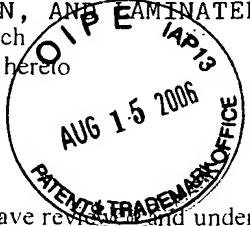
**DECLARATION AND POWER OF ATTORNEY FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)**

As a below named inventor, I hereby declare that: My residence, mailing address, and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:  
**TIN-DOPED INDIUM OXIDE FINE PARTICLE DISPERSION, METHOD FOR MANUFACTURING THE SAME,**

**INTERLAYER FILM FOR LAMINATED GLASS WITH HEAT RAY BLOCKING PROPERTIES FORMED BY USING**

**SAID DISPERSION, AND LAMINATED GLASS THEREWITH**  
 the application of which

is attached hereto



OR

was filed on June 11, 2004 as United States Application Number or PCT International Application Number PCT/JP2004/008576 (Confirmation No. \_\_\_\_\_), and was amended on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part application(s), material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application(s) which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application(s) having a filing date before that of the application on which priority is claimed.

Prior Application Number(s)	Country	Filing Date	Priority Claimed
			Yes
			No
Patent 2003-427446	Japan	24/12/2003	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

I hereby claim benefit under 35 United States Code §119(e) of any United States provisional application(s) listed below.

Application Number(s) [F1]	Filing Date [F2]

I hereby claim benefit under 35 United States Code §120 of any United States application(s) or §365(c) of any PCT International application(s) designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in a listed prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge my duty to disclose any information material to the patentability of this application as defined in 37 C.F.R. 1.56 which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

Prior U.S. or International Application Number(s)	U.S. or International Filing Date	Status

I hereby appoint all attorneys of **SUGHRUE MION, PLLC** who are listed under the USPTO Customer Number shown below as my attorneys to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, recognizing that the specific attorneys listed under that Customer Number may be changed from time to time at the sole discretion of Sughrue Mion, PLLC, and request that all correspondence about the application be addressed to the address filed under the same USPTO Customer Number.

WASHINGTON OFFICE  
**23373**  
 CUSTOMER NUMBER

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**NAME OF SOLE OR FIRST INVENTOR:**

Given Name (first and middle [if any])	Masahiro			Family Name or Surname	HAGIWARA	
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Inventor's Signature	<i>Masahiro Hagiwara</i>			Date	September 14, 2005	
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Residence: City	Kurihara-shi	State		Country	Japan	Citizenship	Japan
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Mailing Address: c/o JEMCO Inc., KASHIMA Plant, 19-1, Higashifukashiba, Kamisu-machi,							
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City	Kashima-gun,	State	Ibaraki-ken,	Zip		Country	Japan
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**NAME OF SECOND INVENTOR:**

Given Name (first and middle [if any])	Takeshi			Family Name or Surname	NAKAGAWA	
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Inventor's Signature	<i>Takeshi Nakagawa</i>			Date	September 14, 2005	
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Residence: City	Kashima-gun	State		Country	Japan	Citizenship	Japan
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Mailing Address: c/o JEMCO Inc., KASHIMA Plant, 19-1, Higashifukashiba, Kamisu-machi,							
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City	Kashima-gun,	State	Ibaraki-ken,	Zip		Country	Japan
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**NAME OF THIRD INVENTOR:**

Given Name (first and middle [if any])	Juichi			Family Name or Surname	FUKATANI	
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Inventor's Signature	<i>Juichi Fukahani</i>			Date	September 14, 2005	
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Residence: City	Ritto-shi	State		Country	Japan	Citizenship	Japan
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Mailing Address: c/o Sekisui Chemical Co., Ltd., 1259, Izumi, Minakuchi-cho,							
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City	Koga-gun,	State	Shiga-ken,	Zip		Country	Japan
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**NAME OF FOURTH INVENTOR:**

Given Name (first and middle [if any])	Tadahiko			Family Name or Surname	YOSHIOKA	
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Inventor's Signature	<i>Tadahiko Yoshioka</i>			Date	September 14, 2005	
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Residence: City	Kawasaki-shi	State		Country	Japan	Citizenship	Japan
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Mailing Address: c/o Sekisui Chemical Co., Ltd., 1259, Izumi, Minakuchi-cho,							
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City	Koga-gun,	State	Shiga-ken,	Zip		Country	Japan
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**NAME OF FIFTH INVENTOR:**

Given Name (first and middle [if any])	Bungo			Family Name or Surname	HATTA	
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Inventor's Signature	<i>Bungo Hatta</i>			Date	September 14, 2005	
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Residence: City	Koka-shi	State		Country	Japan	Citizenship	Japan
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Mailing Address: c/o Sekisui Chemical Co., Ltd., 2-1, Hyakuyama, Shimamoto-cho,							
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City	Mishima-gun,	State	Osaka,	Zip		Country	Japan
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## ASSIGNMENT

Whereas, I/we (1) Masahiro HAGIWARA; (2) Takeshi NAKAGAWA; (3) Juichi FUKATANI; (4) Tadahiko YOSHIOKA and (5) Bungo HATTA

hereinafter called assignor(s), have invented certain improvements in TIN-DOPED INDIUM OXIDE FINE PARTICLE DISPERSION, METHOD FOR MANUFACTURING THE SAME, INTERLAYER FILM FOR LAMINATED GLASS WITH HEAT RAY BLOCKING PROPERTIES FORMED BY USING and executed an application for Letters Patent of the United States of America therefor on SAID DISPERSION, ANI

; and

LAMINATED GLASS  
THEREWITH

September 14, 2005

Whereas, (1) MITSUBISHI MATERIALS CORPORATION  
of 5-1, Otemachi 1-chome, Chiyoda-ku, Tokyo, Japan  
(2) JEMCO Inc. of 1-6, Barajima 3-chome, Akita-shi, Akita-ken, Japan  
(3) SEKISUI CHEMICAL CO., LTD. of 4-4, Nishitenma 2-chome, Kita-ku,  
Osaka-shi, Osaka, Japan

(assignee), desires to acquire the entire right, title and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including the right to claim priority under 35 U.S.C. § 119, and I/we request the Director – U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

I/We hereby authorize and request my/our attorneys SUGHRUE MION, PLLC of 2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037-3213 to insert here in parentheses (Application number \_\_\_\_\_, filed \_\_\_\_\_) the filing date and application number of said application when known.

Date: September 14, 2005 s/ Masahiro Hagiwara  
Masahiro HAGIWARA

Date: September 14, 2005 s/ Takeshi Nakagawa  
Takeshi NAKAGAWA

Date: September 14, 2005 s/ Juichi Fukatani  
Juichi FUKATANI

Date: September 14, 2005 s/ Tadahiko Yoshioka  
Tadahiko YOSHIOKA

Date: September 14, 2005 s/ Bungo Hatta  
Bungo HATTA